



COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

CRIMINALIST I	Class No. 005738
CRIMINALIST II	Class No. 005737
CRIMINALIST III	Class No. 005736

■ CLASSIFICATION PURPOSE

To perform professional work involved in the collection, preservation, analysis and interpretation of physical evidence relevant to law enforcement investigations; testifies in court as an expert witness; and performs related work.

■ DISTINGUISHING CHARACTERISTICS

This is a forensic laboratory scientist class series allocated only to the Sheriff's Department. Criminalists perform analysis, examination, and testing of physical evidence, which require knowledge of several chemical/biological/physical areas including serological examinations, solid dose narcotics analysis, trace evidence, blood alcohol/toxicology analysis, firearms/tool marks, and crime scene processing.

Criminalist I:

This is the entry-level class in the Criminalist class series. Under immediate supervision, incumbents perform physical and chemical analyses and examinations.

Criminalist II:

This is the journey-level class in the Criminalist class series. Under general supervision, incumbents independently analyze and test physical evidence and provide expert witness testimony and interpret results of chemical and biological tests concerning case sample analysis. Criminalist II is distinguished from Criminalist I in that the incumbents must be proficient in at least one of the following areas: serology/DNA, narcotics analysis, toxicology, traffic alcohol, trace evidence analysis, crime scene processing, or firearms/tool marks examination.

Criminalist III:

This is the lead worker class in the Criminalist series. Under general supervision, incumbents provide technical guidance and training to subordinate laboratory personnel, coordinate laboratory functions and are responsible for preparing and analyzing major casework evidence for court. Criminalist III is distinguished from Criminalist II in that incumbents perform the most difficult assignments and may provide instruction in at least one of the following areas: serology/DNA, narcotics analysis, toxicology, traffic alcohol, trace evidence analysis, crime scene processing, or firearms/tool marks examination. Criminalist III differs from the next higher class, Supervising Criminalist, in that the latter is a first-line supervisor with operational responsibility for a major division within the laboratory.

■ FUNCTIONS

The examples of functions listed in the class specifications are representative but not necessarily exhaustive or descriptive of any one position in the classes. Management is not precluded from assigning other related functions not listed herein if such duties are a logical assignment for the position.

Criminalist I:

Essential Functions:

1. Examines crime scenes to collect, preserve and study physical evidence.
2. Performs chemical and biological tests to identify and analyze body fluids, tissues, and various types of related matter.
3. Examines physical evidence such as hair, fibers, soil, paint, glass, ignitable liquids, and other materials and determines physical, microscopic, compositional characteristics.
4. Analyzes drugs and narcotics.

5. Determines alcohol content or drug levels in various materials.
6. Conducts laboratory tests involving firearms and related materials.
7. Interprets results of laboratory tests for law enforcement officers, attorneys, and the courts.
8. Prepares written reports, evidence and exhibits for presentation in court.
9. Testifies in court.
10. Maintains laboratory equipment.
11. Provides responsive, high quality service to County employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.

Criminalist II:

Essential Functions:

All the functions listed above and

1. Assists in testing and evaluating new laboratory equipment, methods and protocols.
2. Instructs law enforcement personnel in proper handling of physical evidence.
3. Independently examines crime scenes to collect, preserve, and study physical evidence.

Criminalist III:

Essential Functions:

All the functions listed above, and:

1. Performs instrument calibration.
2. Coordinates laboratory functions and provides technical guidance and training to subordinate Criminalist and laboratory personnel.
3. Reviews laboratory procedures and evaluates methodology.
4. Estimates case workloads and time requirements.
5. Maintains records of cases, laboratory activities and statistical data.
6. Acts in the absence of the Supervising Criminalist.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

The following apply to all classes.

- Principles, methods and techniques of chemistry, physiology and biology in qualitative and quantitative analysis.
- Laboratory practices, instruments and nomenclature used in the isolation, determination and identification of physical evidence or biological specimens related to criminalistics.
- Operation and maintenance of laboratory instrumentation used for analysis of biological, chemical, narcotic, and physical evidence, such as infrared, Fourier-Transform Infrared (FTIR) and ultraviolet spectrophotometer, gas chromatograph/mass spectrometer, light and electron microscopy, electrophoresis and elemental analysis instrumentation.
- Personal computer hardware, software and operating systems used in laboratory instruments.
- Recent developments, literature and sources of information relative to criminalistics.
- County customer service objectives and strategies.

Criminalist II & Criminalist III (in addition to the above):

- Judicial requirements regarding evidence integrity.
- Investigative techniques as applied to collection and preservation of physical evidence.

Skills and Abilities to:

The following apply to all classes:

- Apply logic and scientific reasoning in order to identify basic problems in criminalistics analysis.
- Identify and analyze chemicals, body fluids, narcotics, drugs, explosives and other physical evidence.
- Investigate evidence relationships.
- Operate and repair laboratory equipment.
- Collect and preserve physical evidence.
- Act as an expert witness providing information on laboratory principles, methods and findings in court.
- Interpret scientific evidence and data to law enforcement personnel, attorneys, and the court.
- Prepare reports, evidence, and exhibits for presentation in court.
- Communicate effectively in both oral and written form.
- Establish and maintain cooperative relations with various law enforcement agency personnel.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.
- Assess the customer's immediate needs and ensure customer's receipt of needed services through personal service or referral.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

Criminalist III (in addition to the above):

- Provide technical guidance and training to laboratory personnel engaged in biological, physical, and chemical analysis related to scientific crime detection.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

Criminalist I:

A bachelor's degree from an accredited college or university in chemistry, biology, or a closely related field, with completed course work consisting of at least eight (8) semester/twelve (12) quarter units of general chemistry and three (3) semester/four (4) quarter units of quantitative analysis.

Criminalist I: DNA OPTION

A bachelor's degree from an accredited college or university in chemistry, biology, or a closely related field, with completed course work consisting of at least eight (8) semester/twelve (12) quarter units of general chemistry and two (2) semester/three (3) quarter units of (each) molecular biology, biochemistry and genetics.

Criminalist II:

A bachelor's degree from an accredited college or university in chemistry, biology, or a closely related field, with completed course work consisting of at least eight (8) semester/twelve (12) quarter units of general chemistry and three (3) semester/four (4) quarter units of quantitative analysis; AND,

1. Three (3) years of experience as a Criminalist I with the San Diego Sheriff's Crime Laboratory including the explanation and presentation of laboratory tests in a court of law as an expert witness; OR,
2. Three (3) years of comparable, full-time experience conducting a variety of forensic examinations including the explanation and presentation of laboratory tests in a court of law as an expert witness; AND, a proficiency in one (1) of the following areas:
 - a. Analysis of solid dose narcotics and dangerous drugs.
 - Experience with three or more of the operational techniques in analyzing solid dose narcotics; AND,
 - Analyzing and presenting court testimony for at least three different solid dose narcotics and dangerous drugs.
 - b. Analysis of alcohol content of blood & urine in forensic samples.
 - Independently performed analytical procedures; AND,
 - Used Direct Injection GC, Head-Space GC, Passive Diffusion or Steam Distillation; AND,
 - Experience in blood sample analysis; AND
 - Appeared in court at least five times as an interpretive expert.
 - c. Analysis of blood or body fluids for genetic characterization.
 - Experience with three techniques used in analyzing blood and other body fluid stains or has independently performed forensic DNA analysis including interpretation of results; AND
 - Appeared in court at least three times as an expert witness.

- d. Analysis of trace evidence.
 - Experience in identifying and analyzing trace evidence in at least three of the items listed below; AND,
 - Appeared in court as an expert witness, describing two of the three following items:
 - Paint Chips
 - Fibers
 - Hairs
 - Arson Evidence
 - Explosive Evidence
 - Glass Fragments
 - Impressions
- e. Analysis of blood, urine, or other materials for drugs and poisons.
 - Experience with five operational techniques in analyzing toxicology samples; AND,
 - Appeared in court as an expert witness, describing at least three different drugs.
- f. Processing crime scenes for physical evidence.
 - Processed seven crime scenes, of which three are homicide scenes; AND,
 - Appeared in court at least two times as an expert witness, describing how crime scenes were processed.
- g. Firearms and tool marks examinations.
 - Experience in firearms and tool marks, including types of exams performed and techniques used, at least ten times, of which six are with firearms; AND
 - Appeared in court as an expert witness, describing analysis, methods, results, and interpretation of firearms and tool marks examinations at least three times.

Criminalist III:

A bachelor's degree from an accredited college or university in chemistry, biology, or a closely related field, with completed course work consisting of at least eight (8) semester/twelve (12) quarter units of general chemistry and three (3) semester/four (4) quarter units of quantitative analysis; AND;

1. Three (3) years of experience as a Criminalist II with the San Diego Sheriff's Crime Laboratory including the explanation and presentation of laboratory tests in a court of law as an expert witness; OR,
2. Five (5) years of comparable, full-time experience conducting a variety of forensic examinations including the explanation and presentation of laboratory tests in a court of law as an expert witness; AND, proficiency in two (2) of the areas listed and defined in Criminalist II above.

Note: A master's degree or higher to qualify as a Technical Leader under the Federal Forensic DNA Analysis Guidelines is highly desirable and may substitute for experience on a year-for-year basis.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classifications. Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Continuous upward and downward flexion of the neck. Frequent: sitting, repetitive use of hands to operate computers, printers and copiers. Occasional: walking, standing, bending and twisting of neck, bending and twisting of waist, squatting, simple grasping, reaching above and below shoulder level, and lifting and carrying of files weighing up to 10 pounds.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in these classes, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in these classes may be required to use their own vehicle.

Certification/Registration

Some positions require State certification as a Forensic Alcohol Supervisor.

Working Conditions

Incumbents may work irregular hours, weekends, holidays or evenings. Work involves exposure to chemical and biological hazards in the handling and analysis of evidence.

Background Investigation

Must have a reputation for honesty and trustworthiness. Felony convictions will be disqualifying. Misdemeanor convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a thorough background investigation which may include a psychological, polygraph or other examination or test.

Probationary Period

Incumbents appointed to permanent positions in these classes shall serve a probationary period of six (6) months (Civil Service Rule 4.2.5).

New: August 15, 1975
Revised: June 9, 2003
Reviewed: Spring 2004
Revised: April 28, 2005
Revised: January 11, 2006

Criminalist I (Class No. 005738)
Criminalist II (Class No. 005737)
Criminalist III (Class No. 005736)

Union Code: PR	Variable Entry: Y
Union Code: PR	Variable Entry: Y
Union Code: PR	Variable Entry: Y